UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,577	12/29/2000	Ephraim Feig	SOM919990022US1(1963-7364	6519

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EXAMINER
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ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/750,577	FEIG, EPHRAIM
	Examiner	Art Unit	
	Kyle R. Stork	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-7,16-18,30 and 31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-7,16-18,30 and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20.4.01* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This non-final office action is in response to the election filed 30 August 2005.

2.   Claims 1-3, 5-7, 16-18, 20-22 and 30-31. Claims 1 and 16 are independent

claims.

Drawings

3.   The examiner has accepted the drawings filed 20 April 2001.

Claim Rejections - 35 USC § 103

4.   Claims 1-3, 5-6, 16-18, 20-21, and 30-31 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Venners ("Java's garbage-collected heap: An introduction to

the garbage-collected heap of the Java virtual machine," August 1996) and further in

view of Meyerzon et al. (US 6638314, filed 26 June 1998, hereafter Meyerzon).

As per independent claim 1, Venners discloses a method for managing data

referred to by referring data, comprising the steps of:

- Identifying one or more referring data portions, each of the one or more referring

    data portions having at least one link pointing to a target data stored in storage

    (pages 3-4)

- Determining when a link in one or more referring data portions ceases to exist

    (pages 3-4)

- Enabling removal of the target data from the storage when the one or more links

    pointing to the target data cease to exist (pages 3-4)

Venners fails to specifically disclose the data portion as being a document and the link as being a hypertext link. However, Meyerzon discloses documents and hyperlinks (column 2, lines 43-55).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Venners's method and Meyerzon's method, since it would have allowed a user to garbage-collect crawled documents (Venners: pages 3-4; Meyerzon: column 2, lines 19-42).

As per dependent claim 2, Venners and Meyerzon disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Meyerzon further discloses documents stored in different storage locations coupled over a network (column 1, lines 12-25).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Venners and Meyerzon's method with Meyerzon's method, since it would have allowed a user to garbage-collect crawled documents (Venners: pages 3-4; Meyerzon: column 2, lines 19-42).

As per dependent claim 3, Venners and Meyerzon disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses the method wherein the one or more referring data portions and the target data are in the same storage device (page 1: Here the same storage is the heap).

As per dependent claim 5, Venners and Meyerzon disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses decrementing a counter when a link ceases to exist (pages 3-4).

As per dependent claim 6, Venners and Meyerzon disclose the limitations similar to those in claim 5, and the same rejection is incorporated herein. Venners further discloses determining whether the count for the counter of the target data equals zero (pages 3-4).

As per independent claim 16, the applicant discloses the limitations similar to those in claim 1. Claim 16 is similarly rejected.

As per dependent claim 17, the applicant discloses the limitations similar to those in claim 2. Claim 17 is similarly rejected.

As per dependent claim 18, the applicant discloses the limitations similar to those in claim 3. Claim 18 is similarly rejected.

As per dependent claim 20, the applicant discloses the limitations similar to those in claim 5. Claim 20 is similarly rejected.

As per dependent claim 21, the applicant discloses the limitations similar to those in claim 6. Claim 21 is similarly rejected.

As per dependent claim 30, Venners and Meyerzon disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses wherein a link pointing to target data ceases to exist when the link is deleted (pages 3-4).

As per dependent claim 31, Venners and Meyerzon disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses wherein a link pointing to a target data ceases to exist when a referring portion of data having the link is deleted (pages 3-4).

5.   Claims 7 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Venners and Meyerzon and further in view of Hug et al. (US 5806078, patented 8

September 1998, hereafter Hug).

As per dependent claim 7, Venners and Meyerzon disclose the limitations similar

to those in claim 6, and the same rejection is incorporated herein: Venners and

Meyerzon fail to specifically disclose wherein if the counter equals zero, further sending

a message to an author of the target document asking whether the author wants to

delete the target document from storage. However, Hug discloses sending a message

to an author of the target document asking whether the author wants to delete the target

document from storage (column 11, lines 15-20).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to have combined Venners and Meyerzon's method with Hug's

method, since it would have allowed a user to ensure that important data is not deleted.

As per dependent claim 22, the applicant discloses the limitations similar to those

in claim 7. Claim 22 is similarly rejected.

Response to Arguments

6.   Applicant's arguments with respect to claims 1-3, 5-7, 16-18, 20-22, and 30-31

have been considered but are moot in view of the new ground(s) of rejection.

The Venners, Meyerzon, and Hug reference have been added to address the

amended claim limitations.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Wise, "Morris's Garbage Compaction Algorithm Restores Reference Counts," 1979: Discloses reference count garbage collection.

- Roy et al., "Garbage collection in object-oriented databases using transactional cyclic reference counting," 1998: Discloses reference count garbage collection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle R. Stork whose telephone number is (571) 272-4130. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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krs

CESAR PAULA
PRIMARY EXAMINER